DOCUMENT RESUME

ED 219 633 CE 033 415

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TITLE A National Study of the Supply and Demand for Teachers of Vocational Agriculture in 1977.
INSTITUTION Tennessee Univ., Knoxville. Coll. of Education.
PUB DATE Mar 78
NOTE 33p.; For related documents see ED 128 646, CE 032 601, and CE 033 416.

EDRS PRICE MF01/PC02 Plus Postage
DESCRIPTORS Administrator Attitudes; *Agricultural Education; College Graduates; Educational Demand; Educational Needs; *Educational Trends; *Employment Patterns; Enrollment Trends; Higher Education; Job Placement; National Surveys; Outcomes of Education; Questionnaires; Teacher Attitudes; Teacher Certification; Teacher Recruitment; *Teacher Supply and Demand; Vocational Education; *Vocational Education Teachers

ABSTRACT

A national study (the thirteenth annual study of its kind) examined the supply and demand for teachers of vocational agriculture in 1977. To obtain data pertaining to supply and demand for vocational agricultural teachers, researchers mailed questionnaires and follow-up letters and made telephone calls to all institutions preparing teachers in vocational agriculture as well as to the offices of state supervisors in agriculture. Information regarding numbers of graduates qualified to teach agriculture and the number of teaching positions available were then tabulated for each state and each institution preparing teachers. Data revealed that, while fewer persons were qualified to teach vocational agriculture in 1977 than were previously graduating, the percentage of individuals placed in vocational agriculture teaching positions remained steady. A turnover of 10.3 percent also contributed to a teacher shortage. Increased numbers of teachers were involved in instructing adults and young farmers as well as high school students. Also increasing were the numbers of positions in technical and community colleges. Recommendations called for increased efforts to recruit students into vocational agriculture education, to reduce teacher turnover, and to reduce the number of uncertified teachers. (MN)

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A NATIONAL STUDY OF THE SUPPLY AND DEMAND FOR TEACHERS OF VOCATIONAL AGRICULTURE IN 1977

By

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Knoxville

March 1978

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FOREWORD

Demand and supply data about vocational agriculture teachers on a state and national basis can be useful in recruitment and public relations efforts. This is the major premise for the study which has been conducted annually for thirteen consecutive years. This study provides objective data from every state that can be used by agricultural education leaders to identify and compare teacher trends in the vocational agriculture profession. It can provide information for planning and evaluating programs as well as for public relations.

In terms of actual use, this study has done much to stimulate recruitment efforts nationally and in states where teacher shortages occur. Teacher education institutions and state departments of education have used the data to aid in their planning and expansion of agricultural education programs. In addition, the data has been used to assist in modifying certification standards. Information from the study has also been used by the National Vocational Agricultural Teachers Association in a careers booth at the National FFA Convention. This report is distributed to every state education department and agricultural teacher education institution, and to selected agricultural education leaders in the United States. Summary reports appear periodically in the Agricultural Education Magazine, The Agri Educator, and the Agriculture Teachers Directory and Handbook. Agricultural business and industry newsletters and magazines include some of the data in news columns and articles.

During the past year difficulty was encountered when seeking funds to publish this report. Hence, the quality of this report may not be comparable to those in the past. More intensive effort is being made to secure adequate funds for the study next year.

Verbal and monetary support for this study and its distribution is provided by the Professional Personnel Recruitment Committee of the Agricultural Education Division, American Vocational Association. During the annual American Vocational Association meeting in December, the Committee receives a progress report of the current study, carefully reviews last year's report, and makes recommendations for improving further study efforts. Responsible suggestions are welcome from any reader.

The author wishes to thank the Department of Vocational-Technical Education for its continued support of this study. A very special acknowledgment is made to Mrs. Elizabeth Lane, a dedicated secretary to the agricultural education staff at The University of Tennessee. She has aided in the conduct of this study for four years.

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TABLE OF CONTENTS

	PAGE
INTRODUCTION	1
GATHERING THE DATA	1
SUMMARY AND RECOMMENDATIONS	2
Recommendations	3
MAJOR FINDINGS	5
Agricultural Education Graduates	6
Enrollments in Agricultural Colleges	7
A Thirteen-Year Comparison of Teacher Supply	8
Changes in Curriculum and Clientele	9
Graduates and Teaching Positions by States and Regions	11
Number of Teachers Prepared by State and Region	16
Suggestions to States with Teacher Shortages	22
Alternatives to Agricultural Education Certification	24
APPENDICES	25
APPENDIX A. Survey of Teacher Demand in Vocational Agriculture	26
APPENDIX B. Survey of Teacher Supply in Vocational Agriculture in 1977	28

LIST OF TABLES

TABLE		PAGE
I.	Number of Teaching Positions in Vocational Agriculture in the United States in 1977	5
II.	Percentages of Agricultural Education Graduates Entering Various Occupations	6
III.	Enrollment in Colleges of Agriculture Compared with Numbers Qualified in Agricultural Education 1959-1977	7
IV.	A Thirteen-Year Comparison of Selected Information on the Supply of Teachers of Vocational Agriculture . . .	8
V.	Types of Teaching Positions in Vocational Agriculture in 1976 and in 1977.	10
VI.	Placement of Agricultural Education Graduates by Regions in 1977.	11
VII.	Teaching Positions in Vocational Agriculture by States and Regions, September 1, 1977.	12
VIII.	Graduates in Agricultural Education by States and Regions During the 1976-77 School Year	17
IX.	Placement of Graduates in Non-Vo-Ag Teaching Positions and Outside the State by Region in 1977.	22
X.	States with Twelve or More Agricultural Education Graduates Employed in Positions Other than Teaching Vocational Agriculture	23
XI.	Alternatives to Agricultural Education Certification by Region in 1977.	24

SUPPLY AND DEMAND FOR TEACHERS OF VOCATIONAL AGRICULTURE IN THE UNITED STATES 1977

INTRODUCTION

The much publicized oversupply of teachers in education is only a half-truth. The field of vocational agricultural education has had a shortage of teachers for many years. This report proposes to describe the nature and degree of the supply and demand of vocational agriculture teachers in 1977. In addition, changes and trends will be identified which have occurred since 1965 when the study began. The findings of this thirteenth annual survey of the supply and demand for teachers of vocational agriculture will be used to stimulate and aid state and nationwide recruitment efforts to secure prospective teachers for the profession.

GATHERING THE DATA

The data on teacher supply and demand were secured from all known institutions preparing teachers in vocational agriculture as well as the offices of head state supervisors in agriculture. Questionnaires were mailed to both groups on August 1, 1977. Follow-up letters and telephone calls were made for four months. A return of nearly 100 percent was received from both groups of respondents.

The respondents were asked to provide information regarding numbers of graduates qualified and the number of teaching positions available. Responses have been tabulated for each state and each institution preparing

teachers. A copy of each of the questionnaires used in the study is included in the Appendix.

SUMMARY AND RECOMMENDATIONS

The summary and recommendations regarding the development of a more adequate supply of teachers is included at this point for the convenience of those readers who do not wish to read the entire study. The following represents a brief review of selected results, conclusions and recommendations.

A total of 1,749 persons were qualified for teaching vocational agriculture in 1977 as compared to 1,038 in 1965. Although the number qualified has decreased somewhat since the high of 1,759 in 1972, the percentage of individuals placed in vocational agriculture teaching remains steady at 60.8 percent in 1977. A turnover of 10.3 percent also contributed to the teacher shortage. This percent of teacher turnover has ranged from nine to twelve percent for each of the past thirteen years.

A comparison of the number of teachers of vocational agriculture in the nation over the past decade shows that the number has increased from a low of 10,221 in 1967 to a record high of 12,694 in 1977. In addition, the number of vocational agriculture teachers in technical institutions and community colleges continues to grow with a total of 1,509 positions.

Several trends continue to appear in types of vocational agriculture teaching positions. Almost 90 percent of all positions occurred in general or comprehensive high schools while about 12 percent were employed in area or vocational high schools. Slightly less than one-half, or 47.4 percent, of the positions involved teaching adults and/or young farmers as well as high school students. The number of teachers in multiple

teacher departments represented about 50 percent of the total, a figure which has stablized in recent years.

About 230 more teachers than in 1976 were teaching in production agriculture programs while 171 more teachers were in specialized areas such as Agricultural Business and Supply, Ornamental Horticulture and Agricultural Mechanics.

Most teaching positions were filled by fully qualified persons holding a bachelor's degree. The number of positions filled by teachers with temporary or emergency certificates increased by one and one-half percent to 554 in 1977.

Recommendations

The Professional Personnel Recruitment Committee has recommended that approximately 1,800 persons per year be qualified for teaching vocational agriculture in the nation. It would appear that this goal is realistic, as evidence is submitted to indicate program growth in terms of new positions. In view of this goal, the following recommendations are suggested:

1. Vocational agriculture teachers should recruit their best students each year for teaching vocational agriculture. Each teacher should have as his/her goal that at least one of his/her students graduate in agricultural education every three years.

2. Teacher turnover should be reduced and maintained at a low percentage level. Local administrators, state supervisors in agricultural education and professional organizations should encourage all effective teachers of quality programs to remain in the profession.

3. State supervisors and teacher educators in surplus states should encourage current agricultural education graduates to cross state lines to

areas where shortages exist. Continued efforts need to be made to make teacher salaries competitive with other fields in which they might enter.

4. State vocational agriculture teacher associations should exercise leadership in forming and/or maintaining an active recruiting campaign. Emphasis should be placed upon the variety of job opportunities, especially specialized subject areas; locations of jobs; and the advantages of teaching as a profession (for example, the importance of agriculture and working with youth).

5. Agricultural education leaders at the state level should make strong efforts to reduce the number of uncertified teachers in the profession. Steps need to be taken to broaden certification standards to include such areas as horticulture, agricultural business and agricultural mechanics. Names and addresses of available and certified teachers need to be placed in the hands of employing superintendents and boards of education.

6. A study is needed to synthesize current research and to seek answers to further questions about vocational agriculture teacher supply and demand. For example, information is needed regarding why qualified graduates do not become employed in available positions and, secondly, "Why do vocational agriculture teachers leave the profession?"

7. This longitudinal study of the supply and demand for teachers of vocational agriculture should be continued under the sponsorship of the Professional Personnel Recruitment Committee of the Agricultural Education Division, American Vocational Association.

MAJOR FINDINGS

The demand for teachers of vocational agriculture is shown in Table I. A turnover of 10.3 percent required 1,308 teacher replacements for the 12,694 positions in 1977. This table shows that there is still a teacher shortage in that 221 teachers were needed but not available September 1, and that 90 departments could not operate during the 1977-78 school year because of a lack of teachers.

TABLE I

NUMBER OF TEACHING POSITIONS IN VOCATIONAL AGRICULTURE IN THE UNITED STATES IN 1977

Item	Number
1. Total positions as of 6/30/77	12,694*[a]
2. New graduates entering teaching during 1976-77 school year	1,063[b]
3. New positions added during 1976-77 school year (net total)	305[c]
4. Number of newly qualified teachers still available 9/1/77	58[d]
5. Teachers needed but unavailable 9/1/77	221[e]
6. Teachers with temporary or emergency certificates	567[f]
7. Departments which will not operate in 1977-78 because of the teacher shortage	90[g]

*Does not include 1,509 positions in technical institutions and community colleges (an increase of 126 from last year).

[a]An increase of 208 from last year; and 587 increase from 1975.
[b]An increase of 20 over the 1976 figure; an increase of 64 from 1975.
[c]A decrease of 89 from last year.
[d]A decrease of 1 from the 1976 figure; up 35 from 1975.
[e]Ten more than in 1976; up 132 from 1975.
[f]An increase of 13 from last year; a 48 decrease from 1975.
[g]A decrease of 38 from last year; up 12 from 1975.

Agricultural Education Graduates

It is evident from Table II that a total of 1,749 teachers were qualified by institutions last year and of these 1,063, or 60.8 percent, accepted teaching positions in vocational agriculture. The table also shows the thirteen-year trends of the number of teachers qualified and the percent entering various occupational areas. The number of graduates entering graduate school and other teaching areas was the lowest in 1977 of any year recorded.

TABLE II

PERCENTAGES OF AGRICULTURAL EDUCATION GRADUATES ENTERING VARIOUS OCCUPATIONS

Occupation	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
Total Number Qualified	1038	1151	1233	1314	1566	1700	1743	1759	1713	1623	1660	1697	1749
Total Number Placed in Vo-Ag	671	701	742	809	891	866	864	964	966	943	999	1043	1063
Teaching Vo-Ag	64.6	61.4	60.2	61.6	56.9	51.0	49.6	54.8	56.3	58.1	60.2	61.5	60.8
Other Work	4.7	8.2	7.2	7.8	7.6	11.0	11.0	11.0	13.7	10.8	9.9	11.0	13.7
Graduate Work	9.2	10.0	12.4	7.8	9.3	9.0	9.1	7.9	7.6	8.9	9.8	8.8	6.3
Farming	3.0	2.6	3.3	3.0	3.7	4.9	7.1	7.7	9.3	9.2	8.2	8.2	8.2
Ag Business	5.6	5.4	3.2	7.0	2.7	4.1	5.1	6.3	6.8	7.8	7.5	6.3	7.4
Other Teaching	6.2	5.4	8.2	7.5	11.4	7.3	6.1	6.6	4.1	4.1	3.3	2.5	1.8
Armed Forces	6.7	7.0	5.5	10.3	8.4	12.7	12.0	5.0	2.2	1.1	1.1	1.7	1.8

Enrollments in Agricultural Colleges

There should be a close relationship between the number of agricultural teachers qualified and the number of persons enrolled in agricultural colleges. Table III shows a more rapid increase in agricultural college enrollments over this thirteen-year period than the number qualified to teach. More specifically, as the number of persons qualified to teach has stabilized somewhat in the past eight years, the agricultural college enrollments have more than doubled.

TABLE III

ENROLLMENT IN COLLEGES OF AGRICULTURE COMPARED WITH NUMBERS QUALIFIED IN AGRICULTURAL EDUCATION 1959-1977

Academic Year	Enrollment in Agriculture	Percent Based on 1959-60	Number Qualified in Agricultural Education	Percent Based on 1959-60
1959-60	33,968	100%	1,324	100%
1964-65	39,623	116.6	1,110	83.8
1968-69	52,623	115.8	1,566	118.3
1969-70	57,517	169.3	1,700	128.4
1970-71	62,863	185.0	1,743	131.6
1971-72	66,057	194.4	1,759	132.9
1972-73	66,752	196.5	1,713	129.4
1973-74	77,516	228.2	1,623	122.6
1974-75	88,992	262.0	1,660	125.4
1975-76	97,941	288.3	1,697	128.2
1976-77	103,382	304.4	1,749	132.1

A Thirteen-Year Comparison of Teacher Supply

A thirteen-year comparison of the number of positions in teaching vocational agriculture in Table IV shows an upward trend since 1971. The highest number of teaching positions occurred in 1977 when there were 12,694.

During the last five years there has been a need per year for more than 200 teachers that were not available. Ironically, last year the second highest number of teachers were qualified and almost 61 percent accepted teaching positions.

TABLE IV

A THIRTEEN-YEAR COMPARISON OF SELECTED INFORMATION ON THE SUPPLY OF TEACHERS OF VOCATIONAL AGRICULTURE

Year	Total No. of Positions	Teachers Needed But Not Available September 1	Total Qualified for Teaching	Percent Qualified Entering Vo-Ag Teaching
1965	10,378	120	1,038	64.6
1966	10,325	162	1,151	61.4
1967	10,221	232	1,233	60.2
1968	10,606	141	1,314	61.6
1969	10,560	121	1,566	56.9
1970	10,520	171	1,700	51.0
1971	10,438	120	1,743	49.6
1972	10,716	134	1,759	54.8
1973	11,141*	276	1,713	56.3
1974	11,578*	292	1,623	58.1
1975	12,107*	211	1,660	60.2
1976	12,486*	211	1,697	61.5
1977	12,694*	221	1,749	60.8

*The figures for 1973 to 1977 do not include teachers of agricultural technicians in technical institutes, community colleges, and similar institutions.

Changes in Curriculum and Clientele

Changes in vocational agriculture teaching positions are shown in Table V. This table shows that 47.4 of the teachers taught both high school and continuing education classes for adult and young farmers, while 48.4 taught only high school classes. The number teaching full-time continuing education classes has stabilized between 521 and 554 during the last three years.

Slightly less than 90 percent of the vocational agriculture positions were located in comprehensive or general high schools, while only about one percent occurred in vocational high schools. The number of teachers located in single teacher departments has fluctuated between 48 and 52 percent in recent years. The percent increased to 50.3 in 1977. Hence, the number of multiple teacher departments decreased to 49.7 percent.

Curricular offerings in agriculture are showing a slight trend toward specialization. Approximately one-half of the teachers are located in programs of part-time production agriculture and specialized areas. The number of teachers with full-time responsibility in specialized programs has increased to 15.7 percent. The percentage of teachers in full-time production agriculture has increased to 34.3 percent of the total positions.

TABLE V

TYPES OF TEACHING POSITIONS IN VOCATIONAL AGRICULTURE
IN 1976 AND IN 1977

Type of Position	Number 1976	Number 1977	Percent of Total 1977
By Kind of Students			
Teachers of adult and young farmer classes only	554	528	4.2
Teachers of high school classes only	5,541	6,078	48.4
Teachers of both high school and out-of-school classes (adult and/or young farmer classes)	6,295	5,963	47.4
By Kind of School			
Teachers in general or comprehensive high schools	10,889	11,076	87.4
Teachers in area vocational schools	1,462	1,487	11.7
Teachers in vocational high schools	127	118	0.9
By Size of Staff			
Teachers in single teacher departments	6,058	6,317	50.3
Teachers in multiple teacher departments	6,402	6,241	49.7
By Kind of Programs			
Teachers in full-time production agriculture programs	3,874	4,105	34.3
Teachers in part-time production agricultural programs and had one or more classes in specialized programs such as Agricultural Supplies, Agricultural Mechanics, etc.	6,147	5,874	49.0
Teachers in full-time specialized programs such as Agricultural Supplies, Agricultural Mechanics, Agricultural Products, etc.	1,831	2,002	16.7

Graduates and Teaching Positions
By States And Regions

There was a close relationship between the regions with the largest number of teaching positions and those producing the largest number of qualified graduates as shown in Table VI. All regions placed more than one-half of their respective qualified graduates. The Pacific Region had the highest placement rate with 76 percent. Although the Southern Region qualified and placed the largest number of teachers, its rate of placement was the lowest with 53 percent.

TABLE VI

PLACEMENT OF AGRICULTURAL EDUCATION GRADUATES
BY REGIONS IN 1977

Region	Teaching Positions	Number Qualified Graduates	Number Placed in Teaching Vo-Ag	% Placed in Teaching Vo-Ag
Southern	5,842	808	429	53.1
Central	3,793	530	354	66.8
Pacific	1,740	238	181	76.0
North Atlantic	1,319	173	99	57.2

A comparison of the number of teaching positions in each of the states and regions is shown in Table VII. Nine states had over 400 teachers of agriculture in secondary schools. They included Texas, 1,505; California, 723; Ohio, 714; Minnesota, 632; Florida, 540; North Carolina, 461; Alabama, 450; Illinois, 448; Oklahoma, 428; and Virginia, 401.

The number of teacher replacements was highest in the Southern Region which required 575 teachers, followed by the Central Region with 429, the Pacific Region with 179, and the North Atlantic Region with 125. The Southern Region had the greatest need for teachers on September 1 with 88; the Central Region needed 71; the Pacific Region, 34; and the North Atlantic Region, 28.

TABLE VII

TEACHING POSITIONS IN VOCATIONAL AGRICULTURE
BY STATES AND REGIONS, SEPTEMBER 1, 1977

North Atlantic Region

State	Total Positions 8/1/77	Number Replacements Employed to 8/1/77	Net Gain in Positions Since 8/1/76	Total Teachers Needed	Teachers Still Needed 8/1/77
New York	358	34	+ 1	35	0
Pennsylvania (1974)	358	45	+ 30	75	22
West Virginia	105	2	+ 3	5	0
Maryland	96	9	+ 2	11	2
Massachusetts	88	4	+ 4	8	0
New Jersey	73	7	+ 6	13	0
Connecticut	58	0	+ 5	5	0
Maine	46	5	0	5	1
Vermont	45	8	+ 1	9	1
Delaware	42	2	+ 7	9	0
New Hampshire	32	8	+ 2	10	2
Rhode Island	18	1	0	1	0
TOTAL FOR REGION	1,319	125	+ 61	186	28

TABLE VII (continued)

TEACHING POSITIONS IN VOCATIONAL AGRICULTURE
BY STATES AND REGIONS, SEPTEMBER 1, 1977

Central Region

State	Total Positions 8/1/77	Number Replacements Employed to 8/1/77	Net Gain in Positions Since 8/1/76	Total Teachers Needed	Teachers Still Needed 8/1/77
Ohio	714	67	+ 26	93	8
Minnesota	632	64	+ 35	99	3
Illinois	448	65	- 5	60	15
Wisconsin	339	48	+ 8	56	6
Missouri	215	6	+ 24	30	8
Indiana	286	48	+ 5	53	10
Iowa	285	8	+ 6	14	1
Michigan	211	25	+ 5	30	10
Kansas	183	25	+ 5	30	0
Nebraska	153	43	+ 1	44	0
North Dakota	148	7	+ 6	13	10
South Dakota	79	23	+ 2	25	0
TOTAL FOR REGION	3,793	429	+118	547	71

TABLE VII (continued)

TEACHING POSITIONS IN VOCATIONAL AGRICULTURE
BY STATES AND REGIONS, SEPTEMBER 1, 1977

Pacific Region

State	Total Positions 8/1/77	Number Replacements Employed to 8/1/77	Net Gain in Positions Since 8/1/76	Total Teachers Needed	Teachers Still Needed 8/1/77
California	723	35	+ 30	65	10
Washington	247	25	+ 10	35	4
Oregon	150	26	- 5	21	1
Colorado	108	27	+ 1	28	3
Arizona	84	11	+ 5	16	1
Idaho	84	9	0	9	0
Montana	82	15	+ 5	20	3
New Mexico	82	16	- 2	14	1
Utah	69	4	+ 1	5	0
Wyoming	53	6	- 1	5	0
Hawaii (1976)	25	0	+ 1	1	0
Nevada	23	3	+ 2	5	1
Alaska	10	2	+ 4	6	10
TOTAL FOR REGION	1,740	179	+ 51	230	34

TABLE VII (continued)

TEACHING POSITIONS IN VOCATIONAL AGRICULTURE
BY STATES AND REGIONS, SEPTEMBER 1, 1977

Southern Region

State	Total Positions 8/1/77	Number Replacements Employed to 8/1/77	Net Gain in Positions Since 8/1/76	Total Teachers Needed	Teachers Still Needed 8/1/77
Texas	1,505	175	+ 22	197	NR
Florida	540	52	+ 9	61	5
North Carolina	461	22	- 12	10	7
Alabama	450	16	+ 5	21	6
Oklahoma	428	53	+ 12	65	0
Virginia	401	45	+ 8	53	10
Georgia	350	42	+ 4	46	8
Kentucky	321	35	+ 5	[illegible]	6
Louisiana	306	12	+ 2	14	5
Arkansas	275	42	+ 3	45	8
Tennessee	263	25	+ 1	26	2
Mississippi	257	23	+ 3	26	0
South Carolina	200	19	+ 3	22	17
Puerto Rico (1976)	81	14	+ 11	25	14
Virgin Islands	2	0	+ 1	1	0
TOTAL FOR REGION	5,842	575	+ 77	652	88
TOTAL FOR THE UNITED STATES	12,694	1,308	+307	1,615	221

In addition there were 1,509 teachers of agricultural technicians in technical institutes and junior and community colleges, making a grand total of 14,203.

Number of Teachers Prepared
By State and Region

Table VIII shows that 1,749 persons were prepared for teaching vocational agriculture in the United States in 83 different institutions. Of these individuals, 1,063 became teachers of vocational agriculture, 304 entered other fields of work, 110 indicated plans to enter graduate school, 142 entered farming, and 130 have chosen agricultural business careers. The largest number of teachers, 808, were prepared in the Southern Region, followed by 530 in the Central Region. The Pacific Region qualified 238 and 173 were prepared in the North Atlantic Region.

In many states one university has been designated for the preparation of teachers of vocational agriculture. States with more than one institution preparing teachers of vocational agriculture included Texas with 9; California, Illinois, Kentucky and Louisiana with 4 each; Arkansas, Tennessee and Wisconsin with 3 each; and Alabama, Delaware, Florida, Georgia, Maryland, Mississippi, North Carolina, Ohio and Virginia each with two.

TABLE VIII

GRADUATES IN AGRICULTURAL EDUCATION
BY STATES AND REGIONS DURING THE 1976-77 SCHOOL YEAR

North Atlantic Region

State	Institutions Reporting	Number of Qualified Graduates					
		Teaching Vo-Ag	Agr. Business	Farming	Graduate Work	Other	Total
Connecticut	Univ. of Connecticut	2	0	0	0	3	5
Delaware	Delaware State College	2	0	0	0	0	2
	Univ. of Delaware	2	2	0	2	4	10
Maryland	Univ. of Maryland	7	1	0	0	3	11
	Univ. of Maryland Eastern Shore	0	0	0	0	0	0
Massachusetts	Univ. of Massachusetts	13	2	0	2	2	19
New Hampshire	Univ. of New Hampshire	2	1	1	1	3	8
New Jersey	Rutgers University	8	1	1	1	1	12
New York	Cornell University	20	0	2	2	12	36
Pennsylvania	Pennsylvania State Univ.	23	3	1	0	12	39
Rhode Island	Univ. of Rhode Island	5	0	0	1	4	10
Vermont	Univ. of Vermont	2	0	0	0	1	3
West Virginia	West Virginia University	13	0	1	0	4	18
TOTAL FOR REGION		99	10	6	9	49	173

TABLE VIII (continued)

GRADUATES IN AGRICULTURAL EDUCATION
BY STATES AND REGIONS DURING THE 1976-77 SCHOOL YEAR

Central Region

State	Institutions Reporting	Number of Qualified Graduates					
		Teaching Vo-Ag	Agr. Business	Farming	Graduate Work	Other	Total
Illinois	Illinois State Univ.	19	0	1	0	0	20
	Southern Illinois Univ.	13	2	2	3	4	24
	University of Illinois Urbana	9	3	2	1	0	15
	Western Illinois Univ. - McComb	11	1	2	0	0	14
Indiana	Purdue University	17	2	4	5	4	32
Iowa	Iowa State University	18	6	5	1	10	40
Kansas	Kansas State Univ.	18	0	5	3	1	27
Michigan	Michigan State Univ.	13	1	2	0	11	27
Minnesota	University of Minnesota	22	1	3	1	2	29
Missouri	University of Missouri	33	2	1	1	1	38
Nebraska	University of Nebraska	13	6	7	1	1	28
North Dakota	North Dakota State University	17	0	3	0	2	22
Ohio	Kent State University	22	0	0	0	0	22
	Ohio State University	64	12	9	4	3	92
South Dakota	South Dakota State University	17	5	2	1	5	30
Wisconsin	Univ. of Wisconsin - Madison	6	1	3	1	4	15
	Wisconsin State University, Platteville	11	1	1	1	2	16
	Wisconsin State University, River Falls	21	14	0	3	1	39
TOTAL FOR REGION		354	57	52	26	51	530

TABLE VIII (continued)

GRADUATES IN AGRICULTURAL EDUCATION
BY STATES AND REGIONS DURING THE 1976-77 SCHOOL YEAR

Pacific Region

State	Institutions Reporting	Number of Qualified Graduates					
		Teaching Voag	Agr. Business	Farming	Graduate Work	Other	Total
Arizona	Univ. of Arizona	8	0	0	0	2	10
California	California State - Fresno	11	0	0	2	1	14
	California State - Pamona	17	0	0	1	2	20
	California State - San Luis Obispo	34	1	0	0	3	38
	Univ. of California - Davis	12	1	1	3	1	17
Colorado	Colorado State Univ.	12	1	4	1	2	20
Idaho	Univ. of Idaho	10	0	0	0	4	14
Montana	Montana State Univ.	7	0	2	0	2	11
Nevada	Univ. of Nevada	0	0	1	0	0	1
New Mexico	New Mexico State Univ.	14	0	1	3	3	21
Oregon	Oregon State Univ.	13	1	3	2	1	20
Utah	Utah State Univ.	10	0	0	0	1	11
Washington	Washington State Univ.	27	7	0	0	0	34
Wyoming	Univ. of Wyoming	6	0	0	0	1	7
TOTAL FOR REGION		181	11	12	12	23	238

TABLE VIII (continued)

GRADUATES IN AGRICULTURAL EDUCATION
BY STATES AND REGIONS DURING THE 1976-77 SCHOOL YEAR

Southern Region

State	Institutions Reporting	Number of Qualified Graduates					
		Teaching Vo-Ag	Agr. Business	Farming	Graduate Work	Other	Total
Alabama	Alabama A & M College	8	1	0	1	12	22
	Auburn Univ.	16	0	0	4	9	29
Arkansas	Arkansas State Univ.	6	1	2	0	5	14
	Univ. of Arkansas - Fayetteville	11	1	0	0	0	12
	Univ. of Arkansas - Pine Bluff	2	0	0	0	1	3
Florida	Florida A & M Univ.(1976)	6	0	0	1	1	8
	Univ. of Florida	14	0	0	2	0	16
Georgia	Fort Valley State College	6	0	0	0	0	6
	Univ. of Georgia	13	0	1	0	3	17
Kentucky	Morehead State Univ.	6	0	0	1	6	13
	Murray State Univ.	7	5	6	1	1	20
	Univ. of Kentucky	9	1	4	1	4	19
	Western Kentucky Univ.	5	6	5	3	1	20
Louisiana	Louisiana State Univ.	11	0	1	0	0	12
	Louisiana Tech Univ.	8	0	1	0	3	12
	Southern University	2	0	0	2	5	9
	Univ. of S.W. Louisiana	8	0	0	0	2	10
Mississippi	Alcorn State Univ.	6	0	0	0	18	24
	Mississippi State Univ.	7	4	1	2	10	24

TABLE VIII (continued)

GRADUATES IN AGRICULTURAL EDUCATION
BY STATES AND REGIONS DURING THE 1976-77 SCHOOL YEAR

Southern Region

State	Institutions Reporting	Number of Qualified Graduates					
		Teaching Vo-Ag	Agr. Business	Farming	Graduate Work	Other	Total
North Carolina	A & T State Univ.	2	0	0	2	4	8
	North Carolina State University	6	1	4	0	7	18
Oklahoma	Oklahoma State Univ.	35	1	2	0	15	53
South Carolina	Clemson Univ.	9	3	3	2	2	19
Tennessee	Tennessee State Univ.	6	0	0	0	0	6
	Univ. of Tennessee - Knoxville	9	0	0	1	5	15
	Univ. of Tennessee - Martin	5	0	2	1	2	10
Texas	East Texas State Univ.	30	4	4	0	0	38
	Prairie View A & M College	8	0	0	0	4	12
	Sam Houston College	32	2	2	7	0	43
	Southwest Texas State Univ.	5	8	0	3	3	19
	Stephen F. Austin State Univ.	14	0	0	0	0	14
	Tarleton State Univ.	30	6	12	9	5	62
	Texas A & I Univ.	13	0	0	0	2	15
	Texas A & M Univ.	16	2	8	13	31	70
	Texas Tech Univ.	21	5	11	2	9	48
Virginia	Virginia Polytechnic Inst. and State Univ.	29	1	3	4	17	54
	Virginia State College	6	0	0	0	6	12
Puerto Rico	Univ. of Puerto Rico	2	0	0	0	0	2
TOTAL FOR REGION		429	52	72	62	193	808
TOTAL FOR UNITED STATES		1,063	130	142	109	316	1,749

Suggestions to States With Teacher Shortages

Tables IX and X are included to aid those who wish to locate additional teachers from other states. A comparison of the number of teachers qualified and the numbers employed but not teaching in Table IX, shows that all of the regions had an appreciable number of qualified persons accepting other positions. It is also emphasized that only a few qualified teachers (5.7 percent) left their home states to find employment in vocational agriculture elsewhere.

TABLE IX

PLACEMENT OF GRADUATES IN NONVO-AG TEACHING POSITIONS AND OUTSIDE THE STATE BY REGION IN 1977

Region	Teachers Qualified	Employed But Not Teaching Vo-Ag	Employed Outside the State
Southern Region	808	379	31
Central Region	530	176	26
Pacific Region	238	57	18
North Atlantic	173	74	25
TOTAL	1,749	686	100

Table X lists all states with 12 or more agricultural education graduates employed but not teaching vocational agriculture. These states may well represent desirable sources of teachers of vocational agriculture for those states who have or anticipate a shortage. This table shows that of the 1,236 graduates qualified for teaching, 537 entered other career fields. The first two states listed, Texas and Ohio, had a total of 180 qualified persons last year who were employed in occupations other than teaching vocational agriculture.

TABLE X

STATES WITH TWELVE OR MORE
AGRICULTURAL EDUCATION GRADUATES EMPLOYED
IN POSITIONS OTHER THAN TEACHING
VOCATIONAL AGRICULTURE

State	Qualified	Employed in Other Positions
Texas	321	152
Ohio	92	28
California	89	15
Illinois	73	21
Kentucky	72	45
Wisconsin	70	32
Virginia	66	31
Oklahoma	53	18
Alabama	51	27
Mississippi	48	35
Louisiana	43	14
Iowa	40	12
Pennsylvania	39	16
New York	36	16
Indiana	32	15
South Dakota	30	13
Nebraska	28	15
Michigan	27	14
North Carolina	26	18
TOTAL	1,236	537

Alternatives to Agricultural Education Certification

During the last two years, an attempt was made to determine what alternative routes to certification were provided students majoring in agricultural education. Table XI shows that a high percentage of institutions provide alternatives to certification through agricultural education. The average was slightly more than 85 percent of the institutions, an eight percent increase over last year. It should be noted that not all institutions offer all of the alternatives listed in the table below. In the Pacific Region the number of students certifying after attaining a B.S. degree is inflated due to five-year teacher education programs in California.

As expected, Table XI shows that the most common alternative to certification is through the regular four-year agricultural education program. The next most common alternatives are as follows: second, after the B.S. degree; third, specialized agriculture; and fourth, double major. Except for the numbers in the Pactific Region, the data is very similar to that of last year.

TABLE XI

ALTERNATIVES TO AGRICULTURAL EDUCATION CERTIFICATION BY REGION IN 1977

Region	Percent of Institutions With Alternatives*	Percent of Graduates Certifying			
		Agricultural Education	Double Major	Specialized Agriculture	After B.S. Degree
North Atlantic Region	92	34.4	14.0	24.5	27.1
Pacific Region	92	53.9	2.8	14.3	29.0
Central Region	89	63.9	13.0	9.5	13.6
Southern Region	68	64.4	5.2	15.1	15.3

*79 of 83 institutions responded

APPENDICES

APPENDIX A

DUE SEPTEMBER 1, 1977

RETURN TO: Dr. David G. Craig
Department of Vocational-Technical Education (Agriculture)
308 Morgan Hall
The University of Tennessee
Knoxville, TN 37916

PLEASE - Return by September 1, 1977

SURVEY OF TEACHER DEMAND IN
VOCATIONAL AGRICULTURE

Name _____ Position _____ State_____

1. Number of teachers of vocational agriculture employed in your state during 1976-77 school year. _____ (Do not include teachers in technical institutes and community colleges.)

2. Number of replacements required for the above teachers during the past year.

_____

3. Number of new and additional positions in teaching vocational agriculture which became available during the past year (7/1/76 to 6/30/77). _____
Number of positions discontinued. _____ Net gain in number of positions during past year. _____ (Please check your math.)

4. Number of newly qualified candidates for teaching vocational agriculture still available (9/1/77). _____

5. Number of vocational agriculture teachers still needed (9/1/77) but not available in your state. _____

6. Number of vocational agriculture teachers last year who held emergency or temporary certificates. _____

7. Number of departments which probably will not operate this year because of a shortage of teachers. _____

8. Of the total number of vocational agriculture teachers reported in Item 1, how many teachers:

   8.1 Taught adult and young farmer classes only. _____

   8.2 Taught high school classes only. _____

   8.3 Taught both high school and out-of-school classes (adult and/or young farmer classes). _____

(8.1 + 8.2 + 8.3 should equal the number of teachers reported in Item 1.)

Please check your addition

How many teachers reported in Item 1:

8.4 Taught in general or comprehensive high schools. _____

8.5 Taught in vocational high schools. _____

8.6 Taught in area vocational schools. _____

(8.4 + 8.5 + 8.6 should equal the number of teachers reported in Item 1.)

How many teachers reported in Item 1:

8.7 Taught in single teacher departments. _____

8.8 Taught in multiple teacher departments. _____

(8.7 + 8.8 should equal the number of teachers reported in Item 1.)

How many teachers reported in Item 1:

8.9 Taught full time in production agriculture programs. _____

8.10 Taught part time in production agriculture programs and had one or more classes in specialized programs such as agricultural supplies or ornamental horticulture. _____

8.11 Taught full time in specialized programs such as agricultural supplies or ornamental horticulture. _____

(8.9 + 8.10 + 8.11 should equal the number of teachers reported in Item 1.)

9. In addition to the teachers of vocational agriculture reported in Item 1, how many were employed as teachers of agriculture in post high school institutions such as community colleges, technical institutes, or area schools? _____

DUE SEPTEMBER 1, 1977

APPENDIX B

DUE SEPTEMBER 1, 1977

RETURN TO: Dr. David G. Craig
Department of Vocational-Technical Education (Agriculture)
308 Morgan Hall
The University of Tennessee
Knoxville, TN 37916

PLEASE - Return by September 1, 1977

SURVEY OF TEACHER SUPPLY IN VOCATIONAL AGRICULTURE IN 1977

1. Total full-time undergraduate enrollment in your institution:

   1.1 In Agriculture (not including Home Economics). _____

   1.2 In Agricultural Education. _____

2. Number qualified for teaching vocational agriculture from your college or university 7/1/76 to 6/30/77. _____

3. Of those qualified above, how many had entered the following occupations by 9/1/77:

   3.1 Teaching Vo-Ag _____
   3.2 Teaching other subjects _____
   3.3 Farm sales service or supply _____
   3.4 Farming _____
   3.5 Graduate work _____
   3.6 Armed Forces _____
   3.7 Other _____

4. Of those qualified during 7/1/76 to 6/30/77, how many were employed in Vo-Ag outside your state? _____

   4.1 Of the graduates who took Vo-Ag jobs in other states, please list the number going to each state.

STATE	NUMBER	STATE	NUMBER
_____	_____	_____	_____
_____	_____	_____	_____

5. Do you provide alternatives to agricultural education certification? e.g., double major, post B.S. courses toward certification? Yes___ No ___

   5.1 How many graduates were certified during 1976-77:

   As agricultural education majors _____
   As double majors _____
   As specialists in teaching ornamental horticulture, agricultural mechanics, or other areas _____
   After receiving the B.S. in Agriculture and taking additional certification requirements _____

Signed _____ Institution _____

DUE SEPTEMBER 1, 1977